

ALLOWED CLAIMS

1. A method of filtering a bitstream having elementary units having a time position, and first timing data indicative of said time positions, a syntactical description of said bitstream, said syntactical description having elements describing said elementary units and containing said first timing data, a semantic description of said bitstream, said semantic description comprising second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units, at least a user specification, said method comprising the steps of:
 - 5 by a filtering processor,
 - searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,
 - 10 deriving time positions for said matching elementary units from said second timing data,
 - 15 using said first timing data to locate in said syntactical description the elements corresponding to said time positions,
 - generating a filtered syntactical description in which the located elements are removed,
 - 20 generating a filtered bitstream from said filtered syntactical description.
2. The filtering method as claimed in claim 1, wherein said syntactical description is an XML document and said filtered syntactical description is generated by applying to said syntactical description a parametric transformation defined in an XSL style sheet having said time positions as input parameter.
- 25 3. The filtering method as claimed in claim 1, wherein said semantic description is compliant with the MPEG-7 standard, and said second timing data are contained in <MediaTime> elements.
- 30 4. A device for filtering a bitstream comprising: elementary units having a time position, and first timing data indicative of said time positions, a syntactical description of said bitstream, said syntactical description having elements describing said elementary units and containing said first timing data, a semantic description of said bitstream, said semantic

description having second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units, at least a user specification, a filtering processor, said filtering processor configured for

5 searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,

 deriving time positions for said matching elementary units from said second timing data,

 using said first timing data to locate in said syntactical description the elements

10 corresponding to said time positions,

 generating a filtered syntactical description in which the located elements are removed,

 generating a filtered bitstream from said filtered syntactical description.

15 5. A transmission system comprising:

 a server device,

 a transmission channel,

 a user device, said user device being intended to receive, from said server device via said transmission channel, a bitstream comprising elementary units having a time position

20 and first timing data indicative of said time positions, and a semantic description of said bitstream, said semantic description comprising second timing data and characterizing data relating to one or more elementary units, said second timing data being indicative of the time positions of said elementary units, said user device having a processor for:

 capturing at least a user specification,

25 generating a syntactical description of said bitstream, said syntactical description comprising elements describing said elementary units and containing said first timing data,

 searching in said semantic description for the characterizing data that match said user specification to identify matching elementary units,

 deriving time positions for said matching elementary units from said second timing

30 data,

 using said first timing data to locate in said syntactical description the elements corresponding to said time positions,

 generating a filtered syntactical description in which the located elements are

removed,

generating a filtered bitstream from said filtered syntactical description.

6. A transmission system comprising:

5 a server device,

 a transmission channel,

 a user device, said user device having means for sending a demand for a content to
said server device via said transmission channel, said demand including a user specification,
and said server device having a processor for filtering a bitstream corresponding to the
10 demanded content according to said user specification and for sending the filtered bitstream
to said user device via said transmission channel,

 wherein said bitstream includes: elementary units having a time position and first
timing data indicative of said time positions, is semantically described in a semantic
description comprising second timing data and characterizing data relating to one or more
15 elementary units, said second timing data being indicative of the time positions of said
elementary units, is syntactically described in a syntactical description comprising elements
describing said elementary units and containing said first timing data, and,

 said processor for filtering the bitstream that correspond to the demanded content is
configured for: searching in said semantic description for the characterizing data that match
20 said user specification to identify matching elementary units, deriving time positions for said
matching elementary units from said second timing data, using said first timing data to locate
in said syntactical description the elements corresponding to said time positions, generating a
filtered syntactical description in which the located elements are removed, generating a
filtered bitstream from said filtered syntactical description.